Case No.	Name	POC	Description, Data requirement	Components, coupling requirement	Status
01	Aerosol Monsoon Cycle over India (May/June, 2005/2006)	Kyu Myong Kim		Aerosol–radiation coupling	Waiting for GOCART-goddard radiation coupling implementation
02	2009 CA wild fires	Qian Tan		Aerosol–radiation coupling	Waiting for GOCART-goddard radiation coupling implementation
03	Dust emission	Qian Tan and Sujay Kumar		Aerosol-land surface coupling (Offline via netcdf first and then online coupling)	May 2010: Not started
04	SGP Soil Moisture (June 15-17, July 25-27 2006)	Joseph Santanello, Sujay Kumar, and Toshihisa Matsui	Selected based on observed clear skies and soil dry-down followed by precip/clouds	LIS-SDSU coupling	First step: offline coupling with Netcdf without WRF
05	California snow (00Z 12/30/05 - 00Z 01/01/06)	Mei Han	Evaluation of a landfalling winter cyclone over complex terrain and comparison to satellite and ground based observations	First test microphysics and then land surface	Tested with NU-WRF 1.0. Currently conducting sensitivity tests of 5 microphysics schemes in WRF V3.1, with focus on model verification with respect to satellite and ground observations
06	Hurricane Wilma 2005	Roger Shi, Scott Braun, Aaron Pratt	Evaluate overall WRF performance	Test new radiation and microphysics	Tested with NU-WRF 1.0
07	Hurricanes with aerosol contributions	Scott Braun and Aaron Pratt		Test microphysics-GOCART coupling	Requires two-moment microphysics. Performed a preliminary test of NU-WRF 1.0 looking at aerosol-cloud microphysics for a squall line over West Africa on 11 Sept, 2006. Used the Lin et al microphysics option and the Goddard shortwave radiation option.
08	C3VP (00Z 1/20 - 00Z 1/23 2007)	Roger Shi		Test new microphysics and radiation	Issue running version in shared area with NU-WRF 1.0; Waiting for further verification from Roger
09 (I)	MSFC: Real-time NSSL: 9 April 2009 (fire and severe weather outbreak over the Southern Plain.)	Jon Case	Need GOCART data for initialization and boundaries	GOCART/aerosol-radiation coupling	Tested with NU-WRF 1.0
09 (II)	MSFC: Real-time NSSL: 10 April 2009 (tornado/large hail	Jon Case	Investigate physics/land surface contribution	New physics and land surface model (LIS)	Tested with NU-WRF 1.0

Case No.	Name	POC	Description, Data requirement	Components, coupling requirement	Status
	outbreak over the Southern Plain)				
10	MSFC: Real-time NSSL: T.S. Erin in Aug 2007	Jon Case	Soil moisture was excessively wet over OK due to antecedent precipitation from the Spring/Summer 2007	LIS-WRF coupling	May 2010: Not started
11	MSFC: Real-time NSSL: 28 March 2007 (tornado outbreak)	Jon Case		Test new Physics	Tested with NU-WRF 1.0
12	Very dry/mostly clear sky with deep PBL growth (14 July 2006)	Joseph Santanello		LIS-WRF coupling using various LSM and PBL options in LIS and WRF respectively without the other components.	Tested with NU-WRF 1.0
13	Aerosol pollution propagation over US (January 01, 2006)	Phil Hayes	This project is designed to extract chemical species data produced by the stand-alone GOCART model and append it to the WRF input and boundary condition files.	Tests GOCART2WRF	Tested with NU-WRF 1.0
14	TexAQS2006	Christa, Mian, Qian, and Sujay	Comprehensive model evaluation and intercomparison for testing the GOCART part of NU-WRF. In addition, look into details about the datasets used for emission calculations vs. those used in standard WRF (WPS) as well as LIS.	Aerosol-land surface coupling	Wait for WRF3.2
15	Typhoon Morakot 2009	Roger Shi, Scott Braun, Aaron Pratt		Test new radiation and microphysics and evaluate overall WRF performance	Tested with NU-WRF 1.0